CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 89-111

SITE CLEANUP REQUIREMENTS FOR:

FRANK PECKETT, FOSTER CHEMICAL COMPANY, and
ROMIC CHEMICAL CORPORATION

for the property located at:

37445 WILLOW STREET
NEWARK, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the "Board") finds that:

1. In December 1987, Romic Chemical Corporation (Romic) purchased approximately six acres located at 37445 Willow Street, Newark, Alameda County, from Mr. Frank Peckett, former owner/operator of Foster Chemical Company (Foster). Foster had operated a chemical packaging and distribution facility at this site since 1975. Before Foster's operations began, the property was predominantly unused pasture land, with a portion leased to E.J. Lavino Brick Company for the storage of bricks. Romic proposes to operate a railroad transfer facility at the 37445 Willow Street, Newark site (the "Site").

2. Groundwater pollution beneath the Site was first identified in 1982 when Ashland Chemical Company (Ashland) installed four monitoring wells as part of an off-site groundwater pollution investigation.

3. In December 1985, Mr. Frank Peckett (at that time owner/operator of Foster Chemical Company) was convicted of unlawful storage and disposal of hazardous wastes pursuant to Sections 25191(d)(2) and 25189.5(b) of the California Health and Safety Code.

4. Mr. Frank Peckett, former owner/operator of Foster (hereinafter referred to as a discharger), is a discharger because of his ownership and occupancy of the property from 1975 until 1987, during which time the groundwater pollution was discovered at the Site. Foster handled several of the chemicals identified in the groundwater beneath the Site. Romic (hereinafter referred to as a discharger), because they are the current owner of the property.

5. Romic has initiated the investigation of the shallow groundwater zone (0-20 feet) hydrogeologic conditions, as well as the lateral and vertical extent of soil and groundwater

pollution on-site. Chemical compounds found as a result of investigations include, acetone, 2-butanone, 1,1 dichloroethane, 1,2 dichloroethane (DCA), 1,1 dichloroethene, ethylbenzene, 2-hexanone, methylene chloride, 4-methyl-2-pentanone, tetrachloroethene, toluene, 1,1,1 trichloroethane, trichloroethene, total xylenes, benzoic acid, isophorone, and pentachlorophenol. These investigations have substantially defined the shallow zone pollution plume in the western portion of the Site. Additional pollution characterization and hydrogeologic investigations are necessary to complete the characterization of the shallow zone.

6. Following recent investigations and evaluation of the shallow zone, Romic has proposed a remedial system consisting of one or more extraction wells. Romic, following further review of this remedial system, and in light of the geologic complexity of the Site, has chosen to further characterize the shallow zone and redesign their shallow zone remedial system. This Order provides for a review of interim and final remedial actions according to specified time schedules.

7. The pollution plume in the shallow zone beneath the Site appears to be contiguous with polluted groundwater beneath at least one, and possibly several, adjacent sites. In April 1988, Romic negotiated an agreement with Ashland to conduct a joint pollution investigation/cleanup. The Board is in the process of adopting parallel Site Cleanup Orders for Ashland, FMC Corporation (FMC), and Jones-Hamilton Company (Jones-Hamilton) in the vicinity of this Site.

8. DCA and EDB have been found in Alameda County Water District (ACWD) wells in the vicinity of the Site. The wells were installed to monitor water levels in the Newark Aquifer, which underlies the shallow zone. In the area, the Newark Aquifer is located approximately 50-70 feet below the ground surface and is separated from the shallow zone by the Newark Aquitard (20-50 feet thick). The mechanism for pollution of the Newark Aquifer has not been positively identified but may be related to inadequate Newark Aquifer well construction or discontinuous hydraulic interconnection between the shallow zone and the Newark Aquifer, or other mechanisms. Additional hydrogeologic investigations and water quality testing are warranted in the Newark Aquifer.

9. The Newark Aquifer in the vicinity of the Site, and for some distance eastward, is saline (chloride concentrations beneath the area average from 15,000 to 20,000 PPM). Further eastward the Newark Aquifer contains freshwater which is currently used for domestic and industrial purposes. The general regional gradient of the Newark Aquifer is westward toward the San Francisco Bay; that is, from the freshwater zones in the east toward the saline zones in the west. Much of the salinity in

the western parts of the Newark Aquifer, at the Site, is the result of saltwater intrusion due to past overdrafting for domestic and industrial use.

10. The ACWD is in the process of implementing a Salinity Barrier Project (SBP) which will withdraw saline water from the Newark Aquifer. The SBP is a line of extraction wells which serve two functions: first, under pumping operation, the wells will create a hydraulic trough along the bay to prevent the intrusion of saline water into potable aquifers during dry periods when groundwater levels are below sea level; second, the SBP will cause freshwater from the eastern recharge zones of the Newark Aquifer to migrate towards the SBP wells, enabling domestic and industrial use of groundwater to resume in portions of the Newark Aquifer which are now saline. All water in the Newark Aquifer west, or bayward of the SBP wells will remain saline. The Site, and the contaminated zone in the Newark Aquifer, are west of the SBP wells as currently designed.

11. Implementation of the SBP near the Site may accelerate the migration of pollutants both horizontally within the Newark Aquifer and vertically from the shallow zone to the Newark Aquifer. The ACWD pump tested wells T-27 and T-11 in 1985 (July through October) at combined rates from 750 to 1,050 gpm. These wells are located approximately 1,600 to 2,400 feet from ACWD wells 2P2, 2P3 (E56), and 2P4 (E57). Drawdowns in the shallow zone and in the Newark Aquifer were observed to be 1-2 feet and 7-9 feet, respectively, in the vicinity of the Site. In the absence of actions to prevent it, pollutants could migrate to the SBP extraction wells, possibly requiring cleanup of the groundwater prior to the planned surface discharge.

12. Pollutants may migrate from the shallow zone to surface waters, and/or to the Newark Aquifer, irrespective of actions associated with ACWD's SBP. Portions of the Centerville and Fremont Aquifers, which aquifers have beneficial uses, are known to exist in the general vicinity of the Site. However, investigations conducted by FMC to date, indicate that these deeper aquifers may not exist directly below the Site. The Board's concern in the shallow zone and in the Newark Aquifer arises primarily from the possibility of pollutant migration to other waters having beneficial uses.

13. Neither the Newark Aquifer nor the shallow zone near the Site has any known current beneficial uses. Potential beneficial uses of the Newark Aquifer underlying the Site include use as industrial and process service water supply.

14. It is the intent of the Board to adopt Site Cleanup Orders for those sites affecting the ability of ACWD to implement

the SBP. It is also the intent of the Board to require proper abandonment of all wells which may provide a conduit for pollutants to migrate from the shallow zone to the Newark Aquifer.

15. Proposed surface discharges from the SBP extraction wells would discharge to the South San Francisco Bay by means of Plummer Creek and the Newark Slough and/or through other means yet to be proposed (pipeline etc.).

16. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) dated December 1986. The Basin Plan contains water quality objectives and beneficial uses for San Francisco Bay and contiguous surface and ground waters.

17. The existing and/or potential beneficial uses of surface waters in the vicinity of the Site include:

    a. Contact and non-contact water recreation
    b. Wildlife habitat
    c. Warm and cold fresh water habitat
    d. Fish migration and spawning

18. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

19. The Board has notified the Dischargers and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.

20. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that Frank Peckett, Foster Chemical Company, and Romic Chemical Corporation shall cleanup and abate the effects described in the above findings as follows:

A. <u>PROHIBITIONS</u>

1. The discharge of wastes or hazardous materials in a manner which will significantly degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Significant migration of pollutants through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup, that will cause significant adverse migration of pollutants, are prohibited.

B. SPECIFICATIONS

1. The treatment or disposal of soil or groundwater containing pollutants shall not create a nuisance as defined in Section 13050 (m) of the California Water Code.

2. The Dischargers shall conduct monitoring activities reasonably necessary to define the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution. Should monitoring results show evidence of plume migration, additional plume characterization may be required.

3. Any wells and/or soil borings penetrating the Newark Aquitard shall be constructed to minimize the potential for pollutant migration between the shallow zone and the Newark Aquifer.

4. Any wells installed by the Dischargers, and identified as potential conduits for the migration of pollutants shall be properly abandoned. A detailed workplan shall be submitted for review and approval, which describes the proposed methods of abandonment for each well identified.

C. PROVISIONS

1. The Dischargers shall review their existing groundwater monitoring program and shall propose within 45 days of the adoption of this Order, modifications as necessary to comply with this Order. This monitoring program shall be acceptable to the Board's Executive Officer. The proposed monitoring program shall include, but need not be limited to, the identification/location of sample wells, the frequency of water level and water quality sampling, and the identification of methods chosen for sample analysis.

2. The discharger shall comply with Prohibitions A.1., A.2. and A.3., and Specification B.1. and B.2., by completing the tasks outlined below in accordance with the following time schedule:

COMPLETION DATE/TASK:

a. COMPLETION DATE: September 15, 1989

TASK: EVALUATION OF KNOWN SHALLOW ZONE POLLUTION AND RECOMMENDED INTERIM REMEDIAL ACTIONS: Submit a technical report acceptable to the Executive Officer which reviews currently known groundwater pollution locations in the shallow zone at the discharger's Site, or off-site, where pollutants exist because of actions previously conducted by the discharger. The report shall also evaluate the various interim remedial alternatives available to minimize further water quality degradation in surface and groundwater, and recommend the preferred interim cleanup alternative, and a time schedule for implementation of the interim cleanup measures.

b. COMPLETION DATE: 90 days after the Executive Officer approves the recommended shallow zone interim remedial actions.

TASK: IMPLEMENTATION OF SHALLOW ZONE INTERIM REMEDIAL ALTERNATIVES: Submit a technical report acceptable to the Executive Officer documenting completion of the implementation of the preferred remediation as selected in Provision C.2.a. The implementation includes but is not limited to engineering designs, equipment procurement, construction and installation, start up, and permitting (e.g. building permits, conditional use permits, air permits, discharge permits, hazardous waste variances, etc.).

c. COMPLETION DATE: November 15, 1989

TASK: SHALLOW ZONE CHARACTERIZATION AND POTENTIAL CONDUIT STUDY: Submit a technical report acceptable to the Executive Officer which defines and includes the results of work performed to complete the vertical and horizontal characterization of the extent of groundwater pollution in the shallow zone existing at the Site. This technical report shall include the results of a potential conduit study, and a summary and evaluation of all information the Dischargers have collected regarding the shallow zone groundwater pollution.

d. COMPLETION DATE: December 15, 1989

TASK: SHALLOW ZONE CLEANUP PLAN / FEASIBILITY STUDY: Submit a technical report acceptable to the Executive Officer which will identify and discuss the shallow zone cleanup alternatives, their feasibility, and their costs and benefits in relation to beneficial use protection, and recommend the preferred cleanup alternative, and a time schedule for implementation of cleanup measures. The report shall also specify a network of monitoring wells which will document the effectiveness which remediation of the shallow zone will have at this Site, and on SBP operation, and any influences which have or may occur on plume migration at the sites of Ashland, FMC, and Jones-Hamilton.

e. COMPLETION DATE: September 15, 1990

TASK: IMPLEMENTATION OF SHALLOW ZONE REMEDIAL ALTERNATIVES: Submit a technical report acceptable to the Executive Officer documenting completion of the implementation of the preferred remediation as selected in Provision C.2.d. The implementation includes but is not limited to engineering design, equipment purchases, construction, start up and permitting (e.g. hazardous waste treatment variance, air discharge, groundwater discharge, conditional use and/or land use) if and where applicable.

f. COMPLETION DATE: February 15, 1990

TASK: NEWARK AQUIFER HYDROGEOLOGIC/POLLUTION CHARACTERIZATION: Submit a technical report acceptable to the Executive Officer which defines and includes the results of work performed to complete the vertical and horizontal characterization of the extent of groundwater pollution in the Newark Aquifer existing at the Site. This technical report shall contain a summary and evaluation of all information the Dischargers have collected regarding the Newark Aquifer groundwater pollution.

g. COMPLETION DATE: May 15, 1990

TASK: NEWARK AQUIFER CLEANUP PLAN / FEASIBILITY STUDY: Submit a technical report acceptable to the Executive Officer which identify and discuss the Newark Aquifer cleanup alternatives in light of information collected in C.2.f., their feasibility, and their costs and benefits in relation to beneficial use protection. The report shall document and/or model the effectiveness which remediation of the Newark Aquifer will have at this Site, and on SBP operation, and any influences which have or may occur on plume migration at the sites of Ashland, FMC, and Jones-Hamilton.

3. On a quarterly basis, the Dischargers shall submit a technical report one month following the end of each quarter, commencing with a report for the quarter ending June 30, 1989 and due July 31, 1989. These quarterly technical reports shall include, but need not be limited to, the results of updated groundwater quality sampling of on-site and off-site wells, updated water table and potentiometric surface maps for all affected water bearing zones, any updated cross-sectional geologic maps describing the hydrogeological setting, and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures (including well locations at adjacent sites). Data collection should be coordinated with pollution studies at Ashland, FMC, and Jones-Hamilton.

4. On an annual basis, for the previous calendar year, by the end of the second month following the calendar year, the Dischargers shall submit an annual technical report acceptable to the Executive Officer which shall document and evaluate the progress of remedial actions. This report shall contain, but not be limited to, information on the number of gallons of groundwater pumped and treated, where the waters were discharged, changes in groundwater quality, changes in the monitoring network, problems encountered in the past year with implemented and/or proposed solutions, and projected cleanup anticipated for the coming year.

5. All hydrogeological reports, documents, plans, and specifications, shall be certified by one of the following: a registered geologist, registered pursuant to Section 7850 of the Business and Professions Code; a certified engineering geologist, certified pursuant to Section 7842 of the Business and Professions Code; or a civil engineer registered pursuant to Section 6762 of

the Business and Professions Code, who has at least five years experience in groundwater hydrology.

6. If the Dischargers are delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order for reasons beyond its reasonable control (permitting etc.), the Dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order extending the time for compliance for a reasonable period.

7. All samples shall be analyzed by State certified laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.

8. In order to effectuate Prohibition A.1., A.2., and A.3., and Specification B.1., and B.2., the Dischargers are encouraged to cooperate with Ashland, FMC, Jones-Hamilton, and ACWD.

9. The Dischargers shall maintain in good working order, and operate, as efficiently as reasonably possible, any facility or control system installed to achieve compliance with the requirements of this Order.

10. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:

    a. Alameda County Water District
    b. Alameda County Health Department
    c. City of Newark
    d. State Department of Health Services/TSCD

11. The Dischargers shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:

    a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

    b. Access to copy any records required to be kept under the terms and conditions of this Order.

    c. Inspection of any monitoring equipment or methodology implemented in response to this Order.

d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Dischargers.

12. The Dischargers shall file a report on any changes in Site occupancy and ownership associated with the facility described in this Order.

13. If any hazardous substance is discharged in or on any waters of the State, or discharged and deposited where it is, or probably will be discharged in or on any waters of the State, the Dischargers shall report such discharge to this Regional Board, at (415) 464-1255 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-business hours. A written report shall be filed with the Regional Board within five (5) working days and shall contain information relative to: the nature of waste or pollutant, quantity involved, duration of the incident, cause of spill, Spill Prevention, Control, and Countermeasures Plan (SPCC) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.

14. The Board will review this Order periodically and revise the requirements as necessary to effectuate the intent of this Order in a prompt and reasonable manner.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 21, 1989.

Steven R. Ritchie
Executive Officer